

Production Gamma Ray (PGR)

Measures naturally occurring radiation emitted by formations to determine lithology

Application

- Make depth correlations with other logs
- Determine formation profiles
- Estimate shale content in reservoir rocks
- Delineate stratigraphic boundaries for several production logs
- Identification of radioactive scale
- Tracer monitoring

Features

- Combinable with other Baker Hughes **Ultrawire™ production logging tools**
- Also available in Dualconn version (1¹¹/₁₆ in. tools only)

The Baker Hughes **Production Gamma Ray (PGR) tool** measures the naturally occurring radiation that is emitted by various formations to determine lithology. Radioactive scale can also be detected.

All PGR tools are compact, rugged and combine excellent sensitivity with high resolution. Gamma rays are detected by a Sodium Iodide scintillation crystal, amplified and counted, then sent to the appropriate

telemetry tool. The detector is temperature compensated to minimise drift from the photomultiplier tube.

When calibrated, the difference between background and calibrator levels establish a ratio between raw counts and API units, allowing a calibrated display to be presented on the log in API units.

Specifications

	PGR021	PGR020
Temperature rating	350°F (177°C)	
Pressure rating	15,000 psi (103.4 MPa)	
Tool diameter	1 ³ / ₈ in. (35 mm)	1 ¹¹ / ₁₆ in. (43 mm)
Tool length	19.7 in. (500 mm)	23.1 (586 mm)
Tool weight	5.1 lb (2.3 kg)	9.4 lb (4.3 kg)
Toolbus	Ultrawire production logging tool	
Current consumption	20 mA	
Sensor measure point	4.6 in. (117 mm)	5.3 in. (134 mm)
Sensitivity (nominal)	1 count per API	
Materials	Corrosion resistant throughout	

